occurred before birth, both the intra-ocular and the extra-ocular muscle-groupings, as a rule, remain unaffected both as to innervation and as to proper action; in fact they seem ordinarily to retain their original condition without any pronounced indications of wear and tear; a condition that most probably evidences very little abuse of a delicately poised muscular apparatus. 3. In the second stage of paresis, as seen in the male, both the intra-ocular and the extra-ocular motor-groupings are in all instances more or less paretic, as evidenced by great inequalities and irregularities of pupillary areas, with peculiarities in iritic movement and loss in ciliary tone and power, as well as by extra-ocular insufficiencies and ataxic nystagmic motions, all indicative of imperfect muscle-innervation and inadequate muscle-action.

An Analysis of the Ocular Symptoms found in the Third Stage of General Paralysis of the Insane. By C. A. OLIVER, M. D. Medical News, 1890, lvii., p. 287.

Each subject was seemingly free from any gross extraneous disease or local disorder, and discretion was exercised that authoritative medical opinion had been given as to the type and stage of the general complaint; the study was limited to the male sex. In a disease of such complex symtomatology, where doubtless quite a number of pathological peculiarities exist at one time, accurate pathognomonic changes cannot be expected in each case, and for this reason a great number of seemingly similar cases were studied to obtain an idiocratic picture of the oculo-motor and retinal changes. A study of 32 cases gives the following conclusions:

1. The oculo-motor symptoms of the third stage of General Paralysis, which consist in varying, though marked, degrees of loss and enfeeblement of iris response to light stimulus, accommodative effect and converging power; lessening of ciliary muscle tone and action; weakening and inefficiency of extra-ocular muscle motion,—all show paretic and paralytic disturbances connected with the oculo-motor apparatus itself, of greater amount and more serious consequence than those seen in the second stage of the disease.

2. The sensory changes in the third stage of General Paralysis, which, though similar to those found in the second stage of the disorder, are so pronounced as to show a semi-atrophic condition of the optic nerve head, and marked reduction in the amount of both optic nerve and retinal circulation, with consequent lowering of centric and excentric vision for both form and color—all indicate a degenerate condition of the sensory portion of the ocular apparatus, with impairment of sensory nerve action.

3. The peculiar local changes seen in these cases, which consist in conditions of the choroid and retina, indicative of local disturbance and irritation of these tunics, more pronounced than those seen during the second stage of the disease—all represent the results of greater wear and tear given to a more delicate and more weakened organ.

4. Both the motor symptoms and the sensory changes of the ocular apparatus, as thus described in the advanced or third stage of General Paralysis, furnish not only evidences of a local disturbance of a more pronounced type than those shown in the second stage of the disorder, but plainly show themselves as one of the many peripheral expressions of fast approaching degeneration and dissolution of nerve elements, most probably connected with related cortex-disintegration and death.

Note on Optic Nerve Atrophy preceding the Mental Symptoms in General Paralysis of the Insane. By JOSEPH WIGGLESWORTH, M. D. Journal of Mental Science, 1890, XXXV, p. 389.

In a previous communication (*Brain*, 1884), Wigglesworth and Bick-

erton have shown that in 66 cases of General Paralysis the *fundus oculi* was normal in a majority of cases, but in a considerable minority there were changes in the direction of *neuritis* or atrophy; and while optic atrophy was noted as a sequel of *neuritis*, it was also not infrequently primary at the disc. In all these cases the changes in the disc had developed after the mental symptoms; but one case was quoted from Nettleship where optic nerve atrophy preceded the symptoms of the disease. Wigglesworth is now able to add a second case of this kind, where the patient had to give up work from blindness three years before any mental symptoms developed. There was well marked gray atrophy of both discs, the vessels, however, not being obviously shrunken. At the post-mortem both optic nerves were much shrunken. Making all due allowance for the fact that the mental symptoms may have existed for some time before they became apparent to the wife, it still seems clear that the optic atrophy was the primary feature. [Folsom, in the article cited at the beginning of these reviews, found in one of his cases, Case VIII, in the prodromal stage, beginning atrophy of the optic disc —the only case where he had ever found it except at a late stage.— REV.]

ALLEGED RECOVERIES.

Fall von Dementia paralytica mit Uebergang in Genesung. DR. WENDT. Allgem. Zeitschr. f. Psychiatrie, 1889, Bd. XLVI, H. 1, S. 77.

Dr. Wendt's case was presented before the 64th Session of the Psychiatric Union of Berlin, Dec. 14, 1888. The patient was a physician, had spent 6 1-2 years in an asylum, and on his discharge had resumed practice and had been a district surgeon for 7 years. Wendt had had him under observation for 3 1-2 years in the asylum. All the physicians who had had charge of him agreed in the diagnosis of general paralysis. When admitted to the asylum in 1872, he was 43 years old; little was known of his life, but there was no history of excesses. Two paternal uncles died in an asylum, and his only living brother was "weak-minded." The prodromal period extended back three years. Ataxic gait, immobile pupils, delusions of grandeur, and weakness of memory, were noted on admission. The history showed the usual symptoms of general paralysis, and his letters would be looked on as typical of the disease, with the customary grandiose ideas, unsteadiness of writing, and omission of words and syllables. From June 1872 to the end of 1874 the disease appears to have been at its height, and had continued without remissions and without essential increase of the characteristic symptoms, and especially of the motor symptoms. These symptoms then receded, and when Wendt took charge of the institution in July 1875, there was an entirely different clinical picture. The motor symptoms had disappeared; gait and standing were steady and firm, and the articulation undisturbed; pupils equal and reacted well. Writing was now and then unsteady, and the tongue had a slight tremor; he expressed no delusions but was considered to have them; looked on his letters as nonsense, which he had written for pastime; he had never been sick, since the insane could not manage the pen. Discharged *improved* in Dec. 1878. Letters received during next six months still showed unsteadiness in handwriting. In Feb. 1879, an unnatural self-complacency was still shown in his letters. Wendt's conclusions are eminently conservative and just; "Including the three years prodromal stage, nineteen years [preceding December 1888] have now elapsed since the beginning of the disease, the remission characteristic of paralysis came on 13 years ago, and has since then continued unbroken; for 9 years Dr. F. has been in medical practice, and for 7 years he has held the office of district surgeon. Doubts may well be entertained if he has regained his *complete* integrity, but at all events an improvement has taken place that rarely occurs in *dementia paralytica*,